

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (previously amended): A location
2 information transmission method for reporting on-road
3 location on a digital map,
4 characterized in that an information provider
5 transmits on-road location information by using road
6 shape data including said on-road location, consisting of
7 a string of coordinates representing the road shape of a
8 road section having a length the depends on the situation
9 and relative data indicating said on-road location in
10 said road section; and
11 that a party receiving said on-road location
12 information performs shape matching using said road shape
13 data to identify said road section on the digital map and
14 uses said relative data to identify the on-road location
15 in said road section.

1 Claim 2 (original): A location information
2 transmission according to claim 1,
3 characterized in that said method uses a string of
4 coordinates arranging latitude/longitude data of the road
5 point per predetermined distance interval as a string of

6 coordinates representing said road shape.

1 Claim 3 (original): A location information
2 transmission method according to claim 1, characterized
3 in that said method uses distance data from a specific
4 point in the road section as said relative data.

1 Claim 4 (original): Location information
2 transmission apparatus for exchanging information about
3 the on-road location on a digital map,
4 characterized in that apparatus at an information
5 provider comprises a location information converter for
6 converting transmit on-road location information to road
7 shape data including said on-road location consisting of
8 a string of coordinates representing the road shape of a
9 road section having a length that depends on the
10 situation and relative data indicating said on-road
11 location in said road section; and
12 that apparatus at a party receiving the on-road
13 location information comprises a shape matching section
14 for performing shape matching by using said road shape
15 data, identifying said road section on a digital map and
16 identifying the on-road location in the road section by
17 using said relative data.

1 Claim 5 (original): Location information
2 transmission apparatus according to claim 4,
3 characterized in that said apparatus uses a string of
4 coordinates arranging latitude/longitude data of the road
5 point per predetermined distance interval as a string of
6 coordinates representing said road shape.

1 Claim 6 (original): Location information
2 transmission apparatus according to claim 4,
3 characterized in that said apparatus uses distance data
4 from a specific point in said road section as said
5 relative data.

1 Claim 7 (original): A traffic information
2 provision/reception system, characterized in that said
3 system comprises location information transmission
4 apparatus according to claim 4.

1 Claim 8 (original): A traffic information
2 provision/reception system according to claim 7,
3 characterized in that said information provider is a
4 center for collecting traffic information in the area and
5 that said party receiving the on-road location
6 information is a center for collecting traffic
7 information in other areas.

1 Claim 9 (original): A traffic information
2 provision/reception system according to claim 7,
3 characterized in that said information provider is an
4 infrastructure for providing traffic information and that
5 said party receiving the on-road location information is
6 a car-mounted navigation apparatus.

1 Claim 10 (new): A location information transmission
2 method for reporting on-road location on a digital map,
3 characterized in that an information provider
4 transmits on-road location information by using road
5 shape data including said on-road location consisting of
6 a string of coordinates representing the road shape of a
7 road section having a length that depends on the
8 situation; and

9 that a party receiving said on-road location
10 information performs shape matching using said road shape
11 data to identify said road section on the digital map.

12 Claim 11 (new): The location information
13 transmission method according to Claim 10,
14 characterized in that said method uses a string of
15 coordinates arranging latitude/longitude data of the road
16 point per predetermined distance interval as a string of

17 coordinates representing said road shape.

1 Claim 12 (new): A location information transmission
2 apparatus for exchanging information about the on-road
3 location on a digital map,
4 characterized in that:
5 an apparatus at an information provider comprises a
6 location information converter for converting transmit
7 on-road location information to road shape data including
8 said on road location consisting of a string of
9 coordinates representing the road shape of a road section
10 having a length that depends on the situation; and
11 an apparatus at a party receiving the on-road
12 location information comprises a digital map and shape
13 matching section for performing shape matching by using
14 said road shape data and identifying said road section of
15 the digital map.

1 Claim 13 (new): The location information
2 transmission apparatus according to Claim 12,
3 characterized in that said apparatus uses a string
4 of coordinates arranging latitude/longitude data of the
5 road point per determined distance interval as a string
6 of coordinates representing said road shape.

1 Claim 14 (new): A traffic information
2 provision/reception system,
3 characterized in that said system comprises location
4 information transmission apparatus according to Claim 12.

1 Claim 15 (new): The traffic information
2 provision/reception system according to Claim 14,
3 characterized in that said information provider is a
4 center for collecting traffic information in the area and
5 that said party receiving the on-road location
6 information is a center for collecting traffic
7 information in other areas.

1 Claim 16 (new): The traffic information
2 provision/reception system according to Claim 14,
3 characterized in that said information provider is
4 an infrastructure for providing traffic information and
5 that said party receiving the on-road location
6 information is a car-mounted navigation apparatus.

1 Claim 17 (new): A receiving device for receiving on-
2 road location information on a digital map from a device
3 of an information provision side, said receiving device
4 comprising:
5 a receiver for receiving road shape data including

6 said on-road location consisting of a string of
7 coordinates representing the road shape of a road section
8 having a length that depends on the situation, from the
9 device of an information provision side;
10 a digital map; and
11 a shape matching section for performing shape
12 matching by using said road shape data and identifying
13 said road section on the digital map.

1 Claim 18 (new): An information provision apparatus
2 for providing on-road location information on a digital
3 map by using a location information transmission method
4 according to Claim 1, said information provision
5 apparatus comprising:
6 a location information converter for converting
7 transmission on-road location information to a road shape
8 data including said on-road location consisting of a
9 string of coordinates representing the road shape of a
10 road section having a length that depends on the
11 situation.